2. (Amended) An endoprosthesis as claimed in claim 1, [characterized in that] wherein said polymers are obtained by copolymerizing monomers of at least two different classes selected from:

a) monomers having sulphate groups

b) monomers having sulphonate groups

c) monomers having sulphamate groups, and

d) monomers having polyoxyalkylene ether groups

3. (Amended) An endoprosthesis as claimed in claim 1 [or 2 characterized in that] wherein the polymers are obtained by copolymerizing monomers of two only of the respective said different classes.

4. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 3 characterized in that] wherein the polymer comprises an additional comonomer having pendant heparin, hirudin, warfarin or hyaluronic acid groups.

5. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 4 characterized in that] wherein the polymer encapsulates the array of stent elements and the tubular flexible material is a hydrogel.

6. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 5 characterized in that] wherein the stent elements are permanently attached to the array of cylindrical stent elements.

7. (Amended) An endoprosthesis as claimed in claim 6 [characterized in that] wherein the tubular flexible material is attached by sewing, welding, an adhesive or mechanical clips.

8. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 7 characterized in that] wherein the tubular flexible material is inside the stent elements.

9. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 7 characterized in that] wherein the tubular flexible material is outside the stent elements.

10. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 7 characterized in that] wherein the stent elements are sandwiched between two flexible tubes.

11. (Amended) An endoprosthesis as claimed in [any one of claims] claim 1 [to 7 characterized in that] wherein the stent elements are encapsulated by the tubular flexible material.

12. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 10 characterized in that] wherein the tubular flexible material is a textile fabric, a woven fabric, or a knitted fabric.

13. (Amended) An endoprosthesis as claimed in claim 12 [characterized in that] wherein the woven or knitted fabric is made from a polyester yarn.

14. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 12 characterized in that] wherein the tubular flexible material is a continuous tubular element or film.

15. (Amended) An endoprosthesis as claimed in claim 14 [characterized in that] wherein the continuous tubular element or film is formed from a synthetic polymer.

16. (Amended) An endoprosthesis as claimed in claim 15 [characterized in that] wherein the synthetic polymer is a polyester, or a polyurethane.

17. (Amended) An endoprosthesis as claimed in claim 14 [characterized in that] wherein the continuous tubular element or film is formed from an elastomer.

18. (Amended) An endoprosthesis as claimed in claim 17 [characterized in that] wherein the elastomer is silicone rubber or polytetrafluoroethylene.

19. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 18 characterized in that] wherein the stent elements are composed of a wire, wound, in zigzag form into a cylindrical shape.

20. (Amended) An endoprosthesis as claimed in claim 19 [characterized in that] wherein the wire has a circular cross section or is a flat tape.

21. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 18 characterized in that] wherein the stent elements are constructed from a metallic or polymeric tube by laser cutting or chemical etching.

22. (Amended) An endoprosthesis as claimed in claim 21 [characterized in that] wherein the wire of each stent element has both ends connected to each other so as to have a continuous form.

23. (Amended) An endoprosthesis as claimed in claim 19 [characterized in that] wherein the ends of the wire of each stent element are joined by overlapping and binding with suture material.

24. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 19 characterized in that] wherein the individual stent elements are made from a continuous length of wire so that they remain connected to each other.

25. (Amended) An endoprosthesis as claimed in [any of claims] claim 17 [to 24 characterized in that] wherein the stent elements are made from spring-tempered metal.

26. (Amended) An endoprosthesis as claimed in claim 25 [characterized in that] wherein the spring-tempered metal is stainless steel.

27. (Amended) An endoprosthesis as claimed in [any of claims] claim 17 [to 24 characterized in that] wherein the stent elements are made from a shape memory alloy.

28. (Amended) An endoprosthesis as claimed in claim 27 [characterized in that] wherein the shape memory alloy wire is martensitic at temperatures lower then 37°C.

29. (Amended) An endoprosthesis as claimed in claim 27 [characterized in that] wherein the shape memory alloy wire is austenitic at or above a temperature of 37°C.

30. (Amended) An endoprosthesis as claimed in claim 27 [characterized in that] wherein the shape memory alloy wire is in superelastic form at or above a temperature of 37°C.

31. (Amended) An endoprosthesis as claimed in [any of claims] claim 17 [to 24 characterized in that] wherein the stent elements are made from a malleable material.

32. (Amended) An endoprosthesis as claimed in claim 31 [characterized in that] wherein the malleable material is malleable stainless steel.

33. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 32 characterized in that] wherein the individual stent elements are arranged so as not to touch each other or to interfere with each other so as to give maximum flexibility to the complete device during delivery and subsequent operation.

34. (Amended) An endoprosthesis as claimed in [any of claims] claim 1 [to 32 characterized in that] wherein the individual stent elements are arranged so as to be alternately of opposite phase with the apexes of the zigs in one stent element in contact with the next, so as to give maximum stability to the device during delivery.

35. (Amended) An endoprosthesis as claimed in claim 1 [to 32 characterized in that] wherein the connections between individual stent elements are bound together to form a longitudinal spine in the complete device.

Remarks

The claims have been amended to bring them into conformity with U.S. practice. Early and favorable consideration is respectfully requested.

Respectfully submitted,

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AMENDED CLAIMS

2. (Amended) An endoprosthesis as claimed in claim 1, wherein said polymers are obtained by copolymerizing monomers of at least two different classes selected from:

a) monomers having sulphate groups

b) monomers having sulphonate groups

c) monomers having sulphamate groups, and

d) monomers having polyoxyalkylene ether groups

3. (Amended) An endoprosthesis as claimed in claim 1 wherein the polymers are obtained by copolymerizing monomers of two only of the respective said different classes.

4. (Amended) An endoprosthesis as claimed in claim 1 wherein the polymer comprises an additional comonomer having pendant heparin, hirudin, warfarin or hyaluronic acid groups.

5. (Amended) An endoprosthesis as claimed in claim 1 wherein the polymer encapsulates the array of stent elements and the tubular flexible material is a hydrogel.

6. (Amended) An endoprosthesis as claimed in claim 1 wherein the stent elements are permanently attached to the array of cylindrical stent elements.

7. (Amended) An endoprosthesis as claimed in claim 6 wherein the tubular flexible material is attached by sewing, welding, an adhesive or mechanical clips.

8. (Amended) An endoprosthesis as claimed in claim 1 wherein the tubular flexible material is inside the stent elements.

9. (Amended) An endoprosthesis as claimed in claim 1 wherein the tubular flexible material is outside the stent elements.

10. (Amended) An endoprosthesis as claimed in claim 1 wherein the stent elements are sandwiched between two flexible tubes.

11. (Amended) An endoprosthesis as claimed in claim 1 wherein the stent elements are encapsulated by the tubular flexible material.

12. (Amended) An endoprosthesis as claimed in claim 1 wherein the tubular flexible material is a textile fabric, a woven fabric, or a knitted fabric.

13. (Amended) An endoprosthesis as claimed in claim 12 wherein the woven or knitted fabric is made from a polyester yarn.

14. (Amended) An endoprosthesis as claimed in claim 1 wherein the tubular flexible material is a continuous tubular element or film.

15. (Amended) An endoprosthesis as claimed in claim 14 wherein the continuous tubular element or film is formed from a synthetic polymer.

16. (Amended) An endoprosthesis as claimed in claim 15 wherein the synthetic polymer is a polyester, or a polyurethane.

17. (Amended) An endoprosthesis as claimed in claim 14 wherein the continuous tubular element or film is formed from an elastomer.

18. (Amended) An endoprosthesis as claimed in claim 17 wherein the elastomer is silicone rubber or polytetrafluoroethylene.

19. (Amended) An endoprosthesis as claimed in claim 1 wherein the stent elements are composed of a wire, wound, in zigzag form into a cylindrical shape.

20. (Amended) An endoprosthesis as claimed in claim 19 wherein the wire has a circular cross section or is a flat tape.

21. (Amended) An endoprosthesis as claimed in claim 1 wherein the stent elements are constructed from a metallic or polymeric tube by laser cutting or chemical etching.

22. (Amended) An endoprosthesis as claimed in claim 21 wherein the wire of each stent element has both ends connected to each other so as to have a continuous form.

23. (Amended) An endoprosthesis as claimed in claim 19 wherein the ends of the wire of each stent element are joined by overlapping and binding with suture material.

24. (Amended) An endoprosthesis as claimed in claim 1 wherein the individual stent elements are made from a continuous length of wire so that they remain connected to each other.

25. (Amended) An endoprosthesis as claimed in claim 17 wherein the stent elements are made from spring-tempered metal.

26. (Amended) An endoprosthesis as claimed in claim 25 wherein the spring-tempered metal is stainless steel.

27. (Amended) An endoprosthesis as claimed in claim 17 wherein the stent elements are made from a shape memory alloy.

28. (Amended) An endoprosthesis as claimed in claim 27 wherein the shape memory alloy wire is martensitic at temperatures lower then 37°C.

29. (Amended) An endoprosthesis as claimed in claim 27 wherein the shape memory alloy wire is austenitic at or above a temperature of 37°C.

30. (Amended) An endoprosthesis as claimed in claim 27 wherein the shape memory alloy wire is in superelastic form at or above a temperature of 37°C.

31. (Amended) An endoprosthesis as claimed in claim 17 wherein the stent elements are made from a malleable material.

32. (Amended) An endoprosthesis as claimed in claim 31 wherein the malleable material is malleable stainless steel.

33. (Amended) An endoprosthesis as claimed in claim 1 wherein the individual stent elements are arranged so as not to touch each other or to interfere with each other so as to give maximum flexibility to the complete device during delivery and subsequent operation.

34. (Amended) An endoprosthesis as claimed in claim 1 wherein the individual stent elements are arranged so as to be alternately of opposite phase with the apexes of the zigs in one stent element in contact with the next, so as to give maximum stability to the device during delivery.

35. (Amended) An endoprosthesis as claimed in claim 1 wherein the connections between individual stent elements are bound together to form a longitudinal spine in the complete device.